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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,519	07/03/2001	Dale Francis Obeshaw	DP-300393	7536

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EXAMINER

ZIMMERMAN, JOHN J

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,519

Applicant(s)

OBESHAU, DALE FRANCIS

Examiner

John J. Zimmerman

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

SECOND OFFICE ACTION

Amendments

1. This Office Action is in response to the Amendment and Request for Reconsideration received December 27, 2003. Claims 1-39 are pending in this application.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-39 are provisionally rejected under the judicially created doctrine of double patenting over the pending claims of copending Application No. 09/704,228 and copending Application No. 09/900,762. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims describe the same contoured structural member. Copending Application No. 09/704,228 and copending Application No. 09/900,762 claim "contoured" members also and any additional structural components that may be required

Art Unit: 1775

for some of the pending claims are covered by the "comprising" language of the claims of the copending applications. Also note that some of the claims of the copending applications require additional components. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7, 10, 20, 31 and 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. It is also indefinite as to what qualifies as a "vehicular module" since there is no standard definition of this term and almost any structural member can be used in vehicular construction, e.g. recreational vehicles, trailers, ships, planes, etc. . . (e.g. claim 10).

7. It is indefinite as to what does (or does not) qualify as a "complex" shape (e.g. see independent claim 7, line 1; claim 20, line 1; claim 31, line 1; claim 37, line 1).

8. It is indefinite as to what is required of a "complex shape" to allow (or not allow) the structural member to be a vehicular module (e.g. claim 10).

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

10. Claims 1-2, 6-7, 10-13, 15 and 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Frease (U.S. Patent 1,677,714).

11. Frease discloses a hollow contoured structural member comprising a contoured inner layer, an intermediate wrapped ribbed structure layer and a contoured outer layer (e.g. see Figures 1-5). The hollow cylindrical construction is a complex shape with inner and outer sheets bent around a central axis. Regarding claims reciting an "initiator", any discontinuity in the article (e.g. a joint) may function as an initiator. Regarding claims 36-39, Frease may not disclose the same process steps, but these claims are product claims and not process claims. When there is a substantially similar product, as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to

Art Unit: 1775

show that the same process of making, see *In re Brown*, 173 U.S.P.Q 685, and *In re Fessmann*, 180 U.S.P.Q. 324. Particularly note that in article claims reciting a method wherein the shrink wrap is added *and* removed, the shrink wrap would not be present in the claimed final article.

12. Claims 1-2, 6-7, 10-14, 18-20 and 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Jonda (U.S. Patent 4,025,675).

13. Jonda discloses a hollow contoured structural member comprising a contoured inner layer, an intermediate honeycomb layer and a contoured outer layer (e.g. see Figures 1-4). The materials that can be used to make the structure of Jonda include resin composite materials. The hollow contoured member is intended to be joined to additional construction (e.g. see column 1, lines 11-15). The hollow cylindrical construction is a complex shape with inner and outer sheets bent around a central axis. Regarding claims reciting an "initiator", any discontinuity in the article (e.g. a joint) may function as an initiator. Regarding article claims reciting process steps, Jonda may not disclose the same process steps, but these claims are product claims and not process claims. When there is a substantially similar product, as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show that the same process of making, see *In re Brown*, 173 U.S.P.Q 685, and *In re Fessmann*, 180 U.S.P.Q. 324. Particularly note that in article claims reciting a method wherein the shrink wrap is added *and* removed, the shrink wrap would not be present in the claimed final article.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frease (U.S. Patent 1,677,714).

16. Frease is described in the rejection, above. Frease may differ from amended claim 5 in that Frease may not require that his metal structural members be made of a metal "alloy". The examiner notes, however, that when artisans refer to making their structures of "metal" in the prior art, they are generally understood to be referring to metal alloys also. Indeed, a large portion of structural components in the art are made of alloys. Alloys are developed for their various properties (e.g. strength, ductility, economy, corrosion resistance, etc. . .). Very few structural components are made of pure metals. It would have been obvious to one of ordinary skill in the art at the time the invention was made that Frease's generic reference to "metal" would include metal alloys also because metal alloys are understood by the skilled artisan to convey various properties to the structures that could not necessarily be found in pure metals (e.g. strength, ductility, economy, corrosion resistance, etc. . .).

17. Claims 1-24, 31-33 and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frease (U.S. Patent 1,677,714) in view of Ohrn (U.S. Patent 6,116,290).

18. Frease discloses a hollow contoured structural member comprising a contoured inner layer, an intermediate wrapped ribbed structure layer and a contoured outer layer (e.g. see Figures 1-5). Frease clearly has multiple layers towards the inside and towards outside of his middle ribbed layer in Figure 3. Regarding claims drawn to specific materials, Frease may differ from these claims in that Frease may not disclose specific materials for his contoured structural member. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any conventional materials for the contoured structural member that might be suited to particular structural requirements and particular environments in which Frease's structural member might be useful. Ohrn is applied to clearly show that composite materials and combinations of metal and composite material are indeed conventionally used in pipelines (e.g. see column 1, lines 6-8; column 2, lines 32-38). In view of Ohrn, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use composite materials in pipes constructed with the intermediate layers as in Frease, because Ohrn clearly discloses that composite materials are conventionally used in pipe construction when their properties would be beneficial. The examiner had previously taken Official Notice that light metals (e.g. aluminum, titanium, etc. . .), composite materials and stainless steels are conventionally used in structural members and therefore their use in Frease's structural configuration would have been considered an obvious variation on the disclosure of Frease. Regarding claims to specific intermediate layer configurations that may not be disclosed by Frease (e.g. honeycomb cores), the examiner had previously taken Official Notice that honeycomb configurations are now considered conventional for core materials that have good

Art Unit: 1775

load bearing properties. In view of the above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any conventional core configuration known for load bearing properties for the core of Frease because Frease discloses that this is the purpose of the intermediate layers. Regarding the method claims reciting roll wrapping, the method of wrapping layers and using a mandrel is a conventional method of forming laminated tubular structures in the art and would not be a patentable distinction over Frease for forming Frease's contoured structural member. Regarding article claims that recite the method by which the article is made, Frease may not disclose the same process steps, but these claims are product claims and not process claims. When there is a substantially similar product, as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show that the same process of making, see *In re Brown*, 173 U.S.P.Q. 685, and *In re Fessmann*, 180 U.S.P.Q. 324. Regarding claims reciting an "initiator", any discontinuity in the article (e.g. a joint) may function as an initiator. Regarding claims requiring particular configurations (e.g. bent), pipe are conventionally bent to fit in structures and also to follow terrain and forming a bend in the pipes of Frease would be an obvious variation on Frease's article because it would allow the pipe to be installed in structures and to follow terrain when used outside of structures.

19. Claims 1-24 and 31-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cappa (U.S. Patent 5,848,767).

20. Cappa discloses forming contoured honeycomb structures by applying an inner face sheet to a mandrel and bending a honeycomb core about the mandrel followed by applying an outer

Art Unit: 1775

face sheet. Cappa then applies a bag around the structure and uses a vacuum to compact the contoured honeycomb structure while the adhesives are cured (e.g. see column 4, line 64 - column 6, line 59). Cappa differs from the claims mainly in that Cappa uses a metal honeycomb core and composite sheet inner and outer layers while applicant claims various combinations of metal inner sheet and/or outer sheet construction or combinations of metal and composite sheets in the contoured structure construction. However, Cappa discloses that in order to save weight and meet various requirements for spacecraft, manufacturers in industry have been substituting composite materials for various parts of aluminum structural elements (e.g. see Background of the Invention - column 1, lines 6-67). In addition, the examiner takes Official Notice that using metal for the face sheets in structural honeycomb articles is conventional in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any combination of composite and metal materials that would best suit the portion of the spacecraft that would be made by Cappa's process because the skilled artisan in this art would find the use of metal and/or composite material face sheets to be an obvious variation on the disclosure of Cappa. Although it is noted that Cappa uses a vacuum bag to secure his structure while it is curing and applicant recites a shrink-wrap materials in some of the pending claims, it would have been obvious to one of ordinary skill in the art at the time the invention was made that a shrink-wrap material performs the same function as the vacuum bag of Cappa and therefore it would not be a patentable distinction over Cappa's disclosed process. Regarding claims reciting an "initiator", any discontinuity in the article (e.g. a joint) may function as an initiator.

Response to Arguments

21. Applicant's arguments filed December 27, 2003 have been fully considered but they are not persuasive.

22. Claims 1-39 remain provisionally rejected under the judicially created doctrine of double patenting over the pending claims of copending Application No. 09/704,228 and copending Application No. 09/900,762. Applicant argues that since this is an obviousness-type double patenting rejection there must be a reason for obviousness and not just the reason that the pending claims are "covered" by the "comprising" language of the copending claims. The examiner notes that the only reason why "obviousness-type double patenting" was used instead of "double patenting" is that "double patenting" basically requires duplicate sets of claims. The claims of this application contain slight variations of groups of limitations that obviate a "double patenting" rejection. However, the sets of claims of this application and the copending applications contain the same limitations except in different and obvious combinations and this results in an obviousness-type double patenting rejection. For example, some pending claims differ from some of the independent claims in the copending applications since they require an "additional structural component" (e.g. see pending claim 1, last line). The independent claims of the copending applications may not have this limitation, but some of their dependent claims do have this limitation (e.g. see claim 20 of SN 09/900,762). Therefore the scopes of the various applications clearly overlap and essentially cover the very same subject matter. This indicates a *prima facie* case of obviousness. In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made that since the claims of the copending applications are drawn to structural parts that are specifically intended for incorporation into

Art Unit: 1775

larger structures (e.g. vehicles) that they would necessarily be connected to "additional structural components". There is clearly no patentable distinction between the sets of claims in this application and the copending applications. Maintaining a patentably distinct line between the sets of claims of the copending applications or filing a terminal disclaimer would overcome the obviousness-type double patenting rejection.

23. Claim 10 remains indefinite since it is not clear what qualifies as a "vehicular module" as there is no standard definition of this term and almost any structural member can be used in vehicular construction, e.g. recreational vehicles, trailers, ships, planes. Applicant has resolved this issue by deleting this term in other claims but has not removed it from claim 10.

24. It is indefinite as to what does (or does not) qualify as a "complex" shape (e.g. see independent claim 7, line 1; claim 20, line 1; claim 31, line 1; claim 37, line 1). Applicant argues that the specification, particularly at paragraph 18, discusses this issue and also depicts both simple and complex shapes in the figures. The examiner notes, however, that while there are examples of "complex" shapes in the specification, there is no definition as to what is (or is not) a "complex" shape. It is not clear what structures outside of the specific examples referred to as "complex" necessarily qualify as "complex". Nor is it clear how much structure an article must have in order to meet this claim limitation. It is not clear when a "simple" shape becomes a "complex" shape. It is also indefinite as to what is required of a "complex shape" to allow (or not allow) the structural member to be a vehicular module (e.g. claim 10).

25. Regarding the rejection of the claims under 35 U.S.C. 102(b) as being anticipated by Frease (U.S. Patent 1,677,714). Frease discloses a hollow contoured structural member comprising a contoured inner layer, an intermediate wrapped ribbed structure layer and a contoured outer layer (e.g. see Figures 1-5). The hollow cylindrical construction is a complex shape with inner and outer sheets bent around a central axis. Applicant has amended the claims to require a plurality of contoured layers in the inner and outer sections, but Frease clearly has multiple layers towards the inside and towards outside of his middle ribbed layer in Figure 3. Applicant argues that the office must provide rationale showing that the claimed product appears to be the same or similar to the structural member of Frease. The examiner notes, however, that the rejection clearly states what physical product limitations appear to be the same as the physical product limitations of the rejected claims. As noted clearly in the section of the M.P.E.P. cited by applicant (M.P.E.P. 2113), once the physical similarities are established by the examiner it is *applicant's burden* to show an unobvious difference.

26. Regarding the rejection of the claims under 35 U.S.C. 102(b) as being anticipated by Jonda (U.S. Patent 4,025,675), this reference clearly discloses multiple fiber reinforcing layers built up on the inner and outer sides of the ribbed core. Regarding applicant's additional arguments drawn to the product-by-process type claims, the examiner again notes that once the physical similarities are established by the examiner it is applicant's burden to show an unobvious difference.

27. Regarding the rejection of the claims under 35 U.S.C. 103(a) as being unpatentable over Cappa (U.S. Patent 5,848,767), Cappa discloses forming contoured honeycomb structures by

Art Unit: 1775

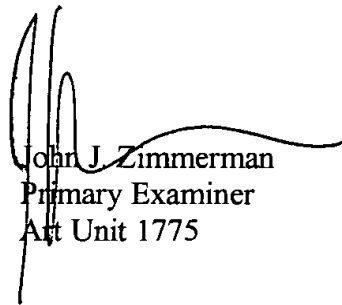
applying an inner face sheet to a mandrel and bending a honeycomb core about the mandrel followed by applying an outer face sheet. Cappa then applies a bag around the structure and uses a vacuum to compact the contoured honeycomb structure while the adhesives are cured (e.g. see column 4, line 64 - column 6, line 59). Cappa uses prepregs and one of ordinary skill in the art understands prepregs to be made of multiple layers of plies. Applicant argues that applicant's roll wrapping process has advantages in that it wraps successive layers of a continuous material to form the inner and outer layers quickly. A review of the pending claims, however, shows no requirement for continuous layers and thus does not prohibit forming the layers of separate sheets. Arguments which are not commensurate with the claim limitations can be given little weight.

Conclusion

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1775

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (703) 308-2512. The examiner can normally be reached on 8:30am-5:00pm, M-F. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
March 14, 2003